

In the Claims

Please amend the claims as follows:

1. (Currently Amended) A microporous film manufactured by a process comprising the steps of:
 - a) molding a film with a mixed blend containing two or more [[of]] polyolefins by using a casting or film blowing;
 - b) ~~manufacturing a microporous film by annealing~~ and stretching the molded film; and
 - c) treating the surface of the film by irradiation with ionizing radiation either before or after [[the]] pore formation.
2. (Original) A microporous film in accordance with claim 1, wherein the mixed blend comprises two or more of polyolefin mixtures having a melting point difference of over 10°C.
3. (Original) A microporous film in accordance with claim 1, wherein the mixed blend comprises a mixture in which polypropylene having a high melting point and polyethylene having a low melting point are mixed in a weight ratio ranging from 1:9 to 9:1.
4. (Original) A microporous film in accordance with claim 1, wherein the surface treatment of irradiation with ionizing radiation is performed on one side or on both sides of the film.
5. (Original) A microporous film in accordance with claim 1, wherein the surface treatment irradiation with ionizing radiation improves the hydrophilicity and/or mechanical properties of the film by irradiating energized ion particles on the film under a vacuum.

6. (Original) A microporous film in accordance with claim 1, wherein the surface treatment irradiation with ionizing radiation improves the hydrophilicity and/or mechanical properties of the film by the infusion of a reactive gas under a vacuum state by means of irradiating energized ion particles on the film.

7. (Original) A microporous film in accordance with claim 5 or claim 6, wherein one or more of ion particles are selected from a group consisting of electrons, hydrogen, oxygen, helium, fluorine, neon, argon, krypton, air, and N₂O.

8. (Original) A microporous film in accordance with claim 6, wherein one or more of reactive gases are selected from a group consisting of hydrogen, oxygen, nitrogen, ammonia, carbon monoxide, carbon dioxide, carbon tetrafluoride, methane, and N₂O.

9. (Original) A microporous film in accordance with claim 1, wherein the ionizing radiation is selected from a group consisting of ions, gamma (γ) rays, plasma, and electron beams.

10. (Withdrawn) A method for manufacturing a microporous film manufactured by a process comprising the steps of:

a) molding a film with a mixed blend containing two or more of polyolefins by using a T-die extruder or film blowing;

b) manufacturing a microporous film by annealing and stretching the molded film; and

c) treating the surface of film by irradiation with ionizing radiation before or after the pore formation.

11. (Withdrawn) A method for manufacturing a microporous film in accordance with claim 10, wherein the mixed blend comprises two or more of polyolefin mixtures having a melting point difference of over 10°C.

12. (Withdrawn) A method for manufacturing a microporous film in accordance with claim 10, wherein the mixed blend comprises a mixture in which polypropylene having a high melting point and polyethylene having a low melting point are mixed in a weight ratio range from 1:9 to 9:1.

13. (Withdrawn) A method for manufacturing a microporous film in accordance with claim 10, wherein the surface treatment of irradiation with ionizing radiation is performed on one side or both sides of the film.

14. (Withdrawn) A method for manufacturing a microporous film in accordance with claim 10, wherein the surface treatment irradiation with ionizing radiation improves the hydrophilicity and/or mechanical properties of a film by irradiating the film with energized ion particles under a vacuum.

15. (Withdrawn) A method for manufacturing a microporous film in accordance with claim 10, wherein the surface treatment irradiation with ionizing radiation improves the hydrophilicity and/or mechanical properties of a film by the infusion of a reactive gas under a vacuum state by means of the irradiation of the film with energized ion particles.

16. (Withdrawn) A method for manufacturing a microporous film in accordance with claims 14 or claim 15, wherein one or more of ion particles are selected from a group consisting of electrons, hydrogen, oxygen, helium, fluorine, neon, argon, krypton, air, and N₂O.

17. (Withdrawn) A method for manufacturing a microporous film in accordance with claim 15, wherein one or more of reactive gases are selected from a group consisting of hydrogen, oxygen, nitrogen, ammonia, carbon monoxide, carbon dioxide, carbon tetrafluoride, methane, and N₂O.

18. (Withdrawn) A method for manufacturing a microporous film in accordance with claim 10, wherein the ionizing radiation is selected from a group consisting of ions, gamma (γ) rays, plasma, and electron beams.

19. (Withdrawn) A lithium ion secondary battery separator or alkali secondary battery separator comprising a microporous film manufactured in accordance with claim 10.

20. (Currently Amended): A separator in a microporous film in accordance with claim 1 used for a lithium ion secondary battery separator or alkali secondary battery comprising the microporous film according to claim 1 separator.